



512908

J

Hennesey deposition concluded 1/9/83

- MR. Hennesey's hearing aid went out & maybe replaced by Wed A.M.
- ① - Hennesey has received the transcript
+ error was 1933 cited of 1934 for
Lidogel + has submitted a sheet of
corrections to E. Schwabachian
- ② - civil eng. degree which was helpful &
- structural design
- designs installed, pressure vessels etc.
the 1952 syllabus changed
- eng. were "generalists" in practice
+ assigned by experience rather than
ed. background
- ③ ✓ - no further education + one summer
at parsons in late 50's or early 60's
+ as to design of wastewater
- went for political reasons: had family
was w/ some other that who was a big
dictator; materials are found a were
rarely used then

2. Major projects

- 1941 designed all structures for Bell O.W.R. plant
- struct. des. for water installation plant in Lethbridge
- he was asst. chief eng. in late '40's & '50's
charge of projects
- operating procedures - prod. dept
- struct. design; piping design; pressure vessels;
process + storage tanks + redesign some
- mostly new projects rather than on one
but may have been scrapped
- repairs went to eng. dept except re to
safety etc.
- ~ 1970 or later finally finished on

(2)

- eng for O+R but were not in engd
 - hired + reported to plat eng (O-R) >
 only for Eng's plat
 - joined RT in 1938

- ④ ord authorization only if emergency ch was
 followed by written authorization > rare
 - if it then should be a work order
 2 → ④ work order
 - plat could spend upto ④ w/o authorization,
 otherwise → work orders

- ⑤ Sell stills to fire tube still
 small projects = moving tanks
 pf → putting in ribbon of to cross plat

- ⑥ Draw went to property until '50's

Monroe Brown was running the ref of Holden
 tanks were hot at the pipe. . But
 Rudy Findio put in fewer bins in late 50's early 60's

⑦ stills

- built in 1921-22 & first in brickwork to
 boil the tan in a pot → fire tube w/insulator
 & fire tubes going in from out oh, so would
 heat the tan (pot not of the bricks) → the
 Lester Hill 1960.

13, 14, 15, 16 → Lester still

- 1- ④ around to make room for fire pots
 9-12 = from down

- still 17 used long ago for some special purpose
 - operating on 4 to 6 stills

(3)

- pass 1600 ~ 40 tons each of pitch
- pre-WWII the oil was 1 distillate
- post war it became residue (pitch) waste
- these are operating up to at least '59 where
- was there
- electrode pitch ~ 100°C
- hard pitch > roofing pitch
- '55-'56 → 3rd pitch pass

⑧ Pole barn: was over the last pass (held up by telephone poles)

~~had water to 3 pitch passes~~

⑨ still conversion to be the still

moving below ground piping & tanks + enclosing at

⑩ why? above ground

⑪ 1940-1 Oil Water Separator → detailed for him

- he had 1° exp. for structural design of separating basin (went on previous experience wh. is all they had of permitting)
- R-T. previous experience (by his other sites at and ct, eg. Fadale plant wh. was used as an example + looked at)
- he was "low man on a Totem pole"
- from points

- use larger ~~capacity~~ + good harbor
- 1h retention time
- follow RT plane
- graph showed flow through site + designed for 1h ~~retention~~ ~ at greatest flow

10. tanks would be corroded from inside as much as outside

11. flow measurement was based upon the overflow

Hessney is drawing a schematic of the oil/water separator w/ an axial (plan) view + side (elevation) view; top baffle for light oil + bottom baffle for heavy oil.

- most oil settles to the bottom + is pumped to a tank + ~~recycled~~ reused

- light is also pumped off to a tank

- 1 hr rotation between stilling baffle + 2nd heavy oil baffle

- light oil is skimmed off by a pipe take to a sump

- heavy oil is removed w/ a pump adjacent to the pit

- heavy oil would be evaluated in the tank - would be useful if it didn't have dirt in it otherwise it would be re-distilled

- light oil was useful but he doesn't know where it went (very little light oil)

- petroleum oil has specific gravity of $< 1 \text{ kg}$ to lubricate compressors

- won't separate oil emulsion but there were very many oil dissolved material; it has to be separable by gravity

- volume is the parameter; they were generous in the design.

~~Eff~~

- How did they determine that the was sufficient time for settling

- only considered the immediate local rainfall

- written operating instructions for the basin

(3)

- Edens: basin made from concrete which will make it last longer than the 30-40 yrs for treated creosote; it was also bigger (1000 gal/b) & RT oil was ~ 2300 gal
- later designed a CO separator for Edens which was a true API basin to replace concrete basin
- also in early 50's did modified API separator in Chattanooga & Cleveland (very low cost)
- API going over a weir @ $\frac{1}{4} \rightarrow \frac{1}{2}$ " deep: you ~~can~~ get an ~~over~~ even flow instead of channel; is also a drain wh
- ~~not at SCB~~ ; " estimator who never used oil
not @ SCB \Rightarrow electrical sludge pump w/ a diaphragm to lift up to a separator
- drains are slowly moving from influent area of basin to effluent on bottom & vice versa on top

M-20: 8/30/70 Henningsen to Finch

Edens separator is an API separator, not built in place, but purchased

~~letter refers to other Edens & the figure~~

M-20A: Operating inst. go to plant op. but operator's instructions would come from the pt. op.

- he could give general operating inst. for basin but mfg inst. for maintenance and operator of pump (keep a copy)

12. All contaminated waste water went through the separator

13 sand, etc. would go in the tank which would have to be cleared out as was done in tanks.

- tiles to sump \Rightarrow pumped into a separator

CS 2 \rightarrow Hennsey schematic of separator

SLP 43 He recognizes it \rightarrow attachments show flow of effluent

14. First at the plant in early 50's + cleaned it for ~ 5 minutes + it looked ok

- at SLP 10 times in twelve years in the 50's + it looked ok except a flood \sim mid-50's to late 50's

15. Prior to settling basin the oil went right of inlet + environmental concern. That is why the basin was used.

- straw filter to get rid of light oil installed \sim 1951, few yrs after basin installation + he was project eng. + Homer was his boss at the time; was concerned for appearance sake

- oil water separator was expensive
- 2 baskets which spanned the trench which was replaced when ~~block~~ block
- also contained a meter for flow measurement in gal/min

- charged by disengagement from 2-3 ft/s/wt to one/2 ft/s
- job crane used as a ~~hand~~ hoist

16. Floods after ~~late~~ ^{winter} put in ~~effluent~~ after heavy rains +

bottom for the figure for the last 80 sec.

hypothal

- had well built upon concepts of biology
- effects right + normal way of things

- 25 pages to support the results

that time; due to time constraints

plant; R.C. Field may have been part of
opposed made in support of all the

2. SLP 49: same from Huxley to R.C. Field, 2/19/70

at least, 60a.

emphasis of our approach from last 40a

meant; also did all available of biology.

- the second came out only to the other

1938 - 4 day plan in one draft

- proposed this in India since late 1960s early 50s

- used the plant? 1950s

and to get it off the road

and off to India

1938

if interested → day 2

longer way forward →

early 1950s (CC(3) 1953)

now; later down from the most

not enough sort of some from the 1950s

15

14. Letting "post" = letting down

why not at the same time add 1 book & SLP

why no other round out? → to let of work

- if Lyon was pres, then McAdams would have been chief acct & T.E. would have been on the Bld.
 - if T.E. was pres. then Lyon chief acct.
+ McAdams in acct. dept.
3. SLP 50: no recall, no identification
4. M80: Larkin asked Edwards to modify settling basin who asked Horner (1951); no recall whatsoever w/r to this document.
5. Wastewater involvement was limited to design of oil/water separator
6. Edens separator would have been used to make water acceptable for disposal into the sewer. He + Justin got a quotation for the Edens separator and went as far as they could go to obtain and install it but didn't get authorization.
7. His expertise is limited to engineering.
8. He filled out the Refuse Act permit w/ the help of Twin City testing but it turned out to be unnecessary. Army required testing for about 10 parameters.
9. M21E: Twin City lab results were for the permit application (about 10 parameters)
10. No involvement w/ state/city lawsuit filed in 10/70
11. Endopl settling basin was built in '20s, he would guess.
12. SLP-20: penultimate #: separator would remove twice as much as what the City would have required.
13. Edens would have removed more than the original but he doesn't know how much better.
14. Straw filter was to clean up the oil; no recall what prompted its installation; no recall discussions w/r to environmental discussions

15. Only personally saw flooding once ~ 1957
but knew of the problem and saw pictures.
Sewer discharge from pipe on east side of plant.
- 16a. SLP 4: 2/19/62 SLP City Council Meeting ab transmits some of Finch's comments at the meeting. P. 23 refers to Finch saying
- refinery well was used to replenish the cooling pond (w-23); contained sand + balls of oil
 - no knowledge of other wells or citizen complaints w/r to phenolic contamination of wells, or to do w/ re toxicity wells
17. (SLP) 48: contaminated waste water was solved in stages w/ API separator into Cuyahoga Creek then into a sewer later on, then cooling tower as "pretreatment" @ the Cleveland distilling facility.
18. M 50: relates to mgmt. of waste water plant + Lesher said its pretty bad
19. M 23: 5/20/68: a request for work order from plant eng. Mr. White to get rid of ground tanks and overhead piping, clear out Finch system, etc. + tanks
- previously it went to blow down tank but then they put in an elevated blowdown tank to avoid having to use the settling basin to remove the flock + improve waste water
 - ↳ of any threat presented to the SLP drinking water supply posed by the SLP plant or threat to the people, etc. etc.
21. ~~SLP~~ M 58: Wheeler was ass't dir. of research in 1969 + DR. Sigla Cislok was director; team

Henneberry was very involved w/ design of Edens separator.

22. He doesn't know whether he did anything in response to this letter.

22. SLP 10: proposed meeting w/ MPCA, c.c. Henneberry

- so recall specifics of discussions w/ Finch but probably had to do w/ fact that you don't just buy Edens separator off the shelf

- did not discuss "natural forces" w/ Finch

23. Ground around the site looked pretty good; the area around the trans load concrete pad to collect drippings. Tadpoles was worse

24. Water from W-23 came from the reciprocating

compressor which had cylinder oil; for years

* they lifted the water w/ compressed air for years

(30 to 40); pressure tank quit after a month

due to oil and sand. (Warren said this may be true.)

25. SLP 45: memorandum wh. refers to closing the facility at SLP but he had no part in that decision but believes that the plant was not too profitable. He doesn't know anything beyond what is contained in this document.

26. (S^MLP) 82

Schwartzbein: John Craven from ERT wondered whether MDH has said whether drift wells are OK or not. Shatzai may be OK to speak directly w/ Hansel, otherwise contact the lawyers & specific questions we can relate.

Hansel: we can give them raw data

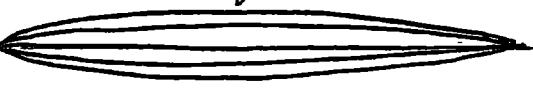
- outside of SLP will give data and modeling

27. M-83: never separated any of these compds. from the ^{coal tar} product; he knew cresols + phenols were in there as well as naphthalene. Prior to 1974 he didn't know that these compds. were harmful except "red wax", (between coke & pitch) could burn your skin + some people's skin would blister if handling treated this.

HIRD CONTINUED

28. He had personal knowledge of the design of the cylinders but not of the operation.
29. He receives a pension from Reilly Tar
30. SLP 43 ~~1943~~: page 3 - "dry weather effluent flow" means in a period w/no rain
31. McItchel is in the hospital probably w/cancer; he probably designed the phenol extraction tank, wh, if installed would have been w/the by products plant
32. Tried to keep rain water from separator
Emulsion did not settle out
33. He had responsibility for filling out the Refuse Act permit forms w/ the plant mgrs + the mrs' chemcial contractor firms.
34. M-79 7/27/38 memo to Edwards from McCollum
 - Edwards would have been 2d in command to Reilly (his senior assistant)
 - 74 lists 6 sources of waste water + he was aware of all but #4 as of 1942.
 - coal tar has ~2% water. The reference probably is to the wet cut wh went to the phenol extraction tank
35. M-10: questionnaire sent to Fresh, asking for info wh Henningsen was to get together; Fresh did fill it out + return

36. M-79: emulsified layer in extracting tar acids from coal
tar w/ caustic soda



36. US 3: filed 5/1/40 M. Mitchell to A. E. Clark
- it is an inter-office memo
- this does not include the creosoting operation

37. M-80 aka US 4:

- Raymond was designed for a max of 1000 gpm
- SLP \longrightarrow 300 gpm
- he doesn't record any discussions w/ Lakin regarding SLP.

38. M-81: Raymond had sulfate liquor in the pond
which caused ↑ in floating oil due to ↑ in
specific gravity.

- lit for acid w/ caustic soda \rightarrow Na salt (cobalt)



- led to low rainfall
data @ SLP to design d/w separator

39. - no personal knowledge of changing straw filters

40. Gross boiler was a backup for when the main
boiler was down (the Riley boiler)

Riley boiler had a worn out stake

41. U.S. 5 is T.E. Reilly was ^{probably} older ~~older~~ per @ this time

- refers to mud or sand rather than tar or oil

*

\rightarrow ask hypothetical

- \rightarrow ~~where~~ place i would imagine have been more concerned w/
sand or tar in boiler fed w/
i: slotted casts of filter, settling pan, etc. vs.
city water.

42. US 6: Holston was plotting. He called them oil balls
but others called them tar balls in pressure tank

- controls of pressure tank were jammed up w/ sand
 - + tan balls
- ~ 1955

43. U.S. 7: no equivalent of Ironator boilers at that time
- Boyle was in charge of insurance
 - Horn was in charge of keeping things insurable: they blew up due to tan
 - Auger Creek was the source of water at Ironator
 - Le first was @ Ironator in late 60's

44. M18: inspector report from Leake & Fidman; Leake was in charge of inspecting plates + reporting back to

HS → iron

BN → tan yards

GE → tan; m. far; on gold

F&S: m. glen

H&N:

H&S: deepest/hardest

HR:

HE/S: dirt/boulders

Forward facing

- border along ^{on all 4 sides} ~~middle~~

like impurities

- taller near steps

AE/N -

Boat & the wall around the eng. part of the report

- correct but no wall of cildish

- pond was muddy

- not familiar w/ sampling

- never inspected the boat

- Leake was pretty accurate

- No humidity looks the same

- p. 7 (IV): steam lines

run immediately alongside

trunk

- JL: Joe Leake

- bad suggestion: "come
you'd never be able to keep
it dry"

45. U.S. 8: - saw it off it was generated probably due to the subject matter

- #2 → says → o/w separate

- 10 ft deep x 16' x 50' about 1' above ground

The salinated canals
be Poco Sani. →

48. US 11 : Some of the
49. M 15 : he is following us.
50. A 16 : obviously not all. Each side did
51. M 3 : they must have some 3.5 yrs. ; probably

47. US 10 : (Left) our part of the bridge for the
bridge was built on the right side of the river.
- The bridge is old & the road is muddy.

۴۶۔ مسٹر: ۱۴۳۴۵۶۷۸۹۰۰۰۰۰

ad. 1000000000

53. US 13: Frischman to Horne

Frischman made the plan because he would have done the work

- Hazardous reusing hot steel 9-12 could last
- they were at the age about when they would have been breaking into the fire
- explosion of pitch tank occurred in late '50s
- Doc. # US 14 says it happened in 1963
- he doesn't know what caused the explosion but hypothesized that cray was left in the tank

54. M 13 -

55. US 15 Boyle memo to Tennessee

- 11/24 was forced to do in as 05
- he spoke w/ Frank Boyle abt the Goldblatt's problem & S of SLP site
- said something about back coating in Goldblatt's problem
- 11/82: Tennessee wrote this as a reply to US 15: he believes it occurs
 - the work wasn't done because it probably was too expensive + difficult to do
 - lost & propose an alternate suggestion to construct a small concrete bin over Cleveland (it probably would have been smaller) w/ top 8' above ground

56. US 16: 9/7/66 memo from Frischman to Teekelly

- what was planting of SLP
- no record whatsoever

57. US 17: no recall of the other explosion but he does recall this one

M 30 - he received a copy of it; these were the trenches in which described as possibly leaking + of Tennessee said full cap w/ water in 4 years / yr.; Frischman was probably correct that there was sediment in the trenches.

69-42 # - Q2 the neighborhood of - 89-

-89-

As well as a few other things like the leather.

US 25 le d. 11. und 22. J. 1920 G. H. F. Hause

67. The office of the chairman, being the word of USCA

oe sin - 77

64 As (5). That part of the body which
65 has been used for the purpose of
66 life.

094 | 59

61:19 | .C9

IS-W 17

60 M-23

876) - no go to bed or jive

135

59. M-50 : Self-best bill : 1942 was made of all

of 27 which it was expected

~~the right of a person to do what he pleases~~ : ~~desert land~~

The world is not the best thing after all.

poor, and the desert of all

- be down if first foot & drop in account

1940 auf der Weltwirtschaftskrise

- 60% breakdown took over partially until

M-32 debt defer the two most problematic ones (such
foreign people were)

Σ8 / Ι.Σ / I

Woke up at 11:45, got ready

38 | he

and also by the general practice of
the church which is to be observed.

DENNIS COYNE EXAMINATION

69. Not aware of other ^{tally} plants who used gov
 70. Answer to inter. #15 has exhibit F
 - It shows pages of "F"
 71. method ' airlift'
 " 2 hydrosup → condenser
 " 3 deepwell pump → pond
 M-19 : pond lines 3-4 would be melted 4 (if cracked)
 - pressure tank was discontinued in 1968
 72. well → surge tank → pond (surge tank also referred
 to as a "stilling basin")
 73. condenser / compressor was located inside of the
 Treating bldg.
 - water in retort sea came directly from the pump
 - pump (in the firehouse) took its suction from the
 pond
 - no direct connection to the bldg. until
 city water was put in
 - compressor had a line which put air into the well
 - w/ condenser in vacuum line @ 50°
 - always a little oil/water mixture from retort
 changers when they'd open the door & it
 would go to sump → settling tank →
 settling basin
 - no connection from retort sea to cooling
 pond.
 74. Horner may know the reason that a 10" casing
 was put into the well; Courtney was the
 chief analytical chemist who is presently living
 in Indianapolis and was in good shape as
 of a few years ago. He then got into the
 pilot plant in Indianapolis (E+I was running it)
 Coder is a graduate chemist + came to E+I ~ 1965-70
 - he is a lab chemist who does chemical research as

well as product development

75. If you get a "red" tube, a good operator will shutdown
the boiler to avoid having to replace the tube
- he was not aware of tar in any of the cooling water
- creosote oil probably leaked from condenser coils
+ could have gotten into the cooling pond water.